Complete Summary

GUIDELINE TITLE

Preventive health care, 2000 update. Use of ambulatory electrocardiography for the detection of paroxysmal atrial fibrillation in patients with stroke.

BIBLIOGRAPHIC SOURCE(S)

Bell C, Kapral M. Use of ambulatory electrocardiography for the detection of paroxysmal atrial fibrillation in patients with stroke. Canadian Task Force on Preventive Health Care. Can J Neurol Sci 2000 Feb;27(1):25-31. [78 references]

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

- Stroke
- Transient ischemic attack
- Paroxysmal atrial fibrillation

GUIDELINE CATEGORY

Prevention
Screening
Treatment

CLINICAL SPECIALTY

Cardiology
Family Practice
Geriatrics
Internal Medicine
Nursing

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Nurses
Physician Assistants
Physicians
Students

GUIDELINE OBJECTIVE(S)

To develop guidelines for the use of ambulatory electrocardiography in the investigation of patients with stroke.

TARGET POPULATION

Patients with stroke or transient ischemic attack.

INTERVENTIONS AND PRACTICES CONSIDERED

Routine ambulatory electrocardiography in all stroke patients or ambulatory electrocardiography in selected patients.

MAJOR OUTCOMES CONSIDERED

- Accuracy of ambulatory electrocardiography in stroke patients
- Treatment efficacy for the prevention of recurrent stroke if atrial fibrillation is detected

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

MEDLINE was searched from 1966 to June 1999 using the MeSH (medical subject headings) terms cerebrovascular disorders; atrial fibrillation; electrocardiography, ambulatory; electrocardiography; monitoring, physiologic; diagnosis; prevention; research design; therapy; cohort studies; and clinical trials. A manual review of references cited in these studies was also performed.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Quality of evidence was rated according to 5 levels:

I - Evidence from at least 1 properly randomized controlled trial.

II-1 - Evidence from well-designed controlled trials without randomization.

II-2 - Evidence from well-designed cohort or case-control analytic studies, preferably from more than 1 centre or research group.

II-3 - Evidence from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments could also be included here.

III - Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees.

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not applicable

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The 9-member Task Force of experts in family medicine, geriatric medicine, pediatrics, psychiatry and epidemiology used an evidence-based method for evaluating the effectiveness of preventive health care interventions. Recommendations were not based on cost-effectiveness of options. Patient preferences were not discussed.

Background papers providing critical appraisal of the evidence and tentative recommendations prepared by the chapter author were pre-circulated to the members. Evidence for this topic was presented and deliberated upon in a 2-day meeting in May 1998. Consensus was reached on final recommendations.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Grades of Recommendation:

A. Good evidence to support the recommendation that the condition or maneuver be specifically considered in a periodic health examination.
B. Fair evidence to support the recommendation that the condition or maneuver be specifically considered in a periodic health examination.
C. Insufficient evidence regarding inclusion or exclusion of the condition or maneuver in a periodic health examination, but recommendations may be made on other grounds.
D. Fair evidence to support the recommendation that the condition or maneuver be specifically excluded from a periodic health examination.
E. Good evidence to support the recommendation that the condition or maneuver be specifically excluded from a periodic health examination.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

This report was externally peer reviewed. The American College of Cardiology/American Heart Association Task Force on the assessment of diagnostic and therapeutic cardiovascular procedures suggests a Class II indication ("subject to a divergence of opinion with respect to its utility") for the use of ambulatory electrocardiography in patients with known atrial fibrillation and treated with antiarrhythmic medication. Neither their recommendations nor other reviews mention the use of ambulatory electrocardiography in the evaluation of strokes.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Recommendation grades [A, B, C, D, E] and levels of evidence [I, II-1, II-2, II-3, III] are indicated after each recommendation. Definitions for these grades and recommendations are repeated following the recommendations.

- There is insufficient evidence to recommend for or against ambulatory electrocardiography screening for patients presenting with stroke or transient ischemic attack (Knoebel et al., 1989; Pratt et al., 1988; DiMarco & Philbrick, 1990; Zimetbaum & Josephson, 1999; Koudstaal et al., 1986; Britton et al., 1979; Richardt et al., 1989; Norris, Froggatt, & Hachinski, 1978; Rem et al., 1985; Mikolich, Jacobs, & Fletcher, 1981; Hornig et al., 1966) (C, II-2, III).

- There is fair evidence to generalize from chronic atrial fibrillation data and expert opinion to recommend therapy with warfarin (EAFT Study Group, 1993) (B, I).

Definitions:

Recommendation Grades:

A. Good evidence to support the recommendation that the condition or maneuver be specifically considered in a periodic health examination (PHE).
B. Fair evidence to support the recommendation that the condition or maneuver be specifically considered in a PHE.
C. Poor evidence regarding inclusion or exclusion of the condition or maneuver in a PHE, but recommendations may be made on other grounds.
D. Fair evidence to support the recommendation that the condition or maneuver be specifically excluded from consideration in a PHE.
E. Good evidence to support the recommendation that the condition or maneuver be specifically excluded from consideration in a PHE.

Levels of Evidence:

I - Evidence from at least 1 properly randomized controlled trial (RCT).

II-1 - Evidence from well-designed controlled trials without randomization.

II-2 - Evidence from well-designed cohort or case-control analytic studies, preferably from more than 1 centre or research group.

II-3 - Evidence from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments could also be included here.

III - Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

Maneuver: Ambulatory electrocardiography for all patients presenting with stroke or transient ischemic attack.
Level of Evidence:

Four descriptive studies (III)
Seven cohort and case-control studies (II-2)

Maneuver: Anticoagulation if atrial fibrillation detected after stroke.
Level of Evidence:
One randomized controlled trial (25% of patients in large randomized controlled trial) (I) (no subgroup data provided)

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Ambulatory electrocardiography can detect atrial fibrillation not found on the initial electrocardiogram in between 1% and 5.4% of people with stroke.
- Ambulatory electrocardiography is without risk.
- Patients with detected paroxysmal atrial fibrillation probably have an elevated stroke recurrence risk as estimated from those in chronic atrial fibrillation. Anticoagulation probably reduces this risk by 50% (exact risk reduction is uncertain, but can be likened to chronic atrial fibrillation risk).

POTENTIAL HARMS

The risk of major bleeding with anticoagulation is likely 2.8% per year.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Implementation of preventive activities in clinical practice continues to be a challenge. To address this issue, Health Canada established a National Coalition of Health Professional Organizations in 1989. The purpose was to develop a strategy to enhance the preventive practices of health professionals. Two national workshops were held. The first focused on strengthening the provision of preventive services by Canadian physicians. The second addressed the need for collaboration among all health professionals. This process led to the development of a framework or "blueprint for action" for strengthening the delivery of preventive services in Canada (Supply and Services Canada: an Inventory of Quality Initiatives in Canada: Towards Quality and Effectiveness. Health and Welfare Canada, Ottawa, 1993). It is a milestone for professional associations and one that will have a major impact on the development of preventive policies in this country. In 1991 the Canadian Medical Association spearheaded the creation of a National Partnership for Quality in Health to coordinate the development and implementation of practice guidelines in Canada. This partnership includes the following: the Association of Canadian Medical Colleges, the College of Family Physicians of Canada, the Federation of Medical Licensing Authorities of Canada, the Royal College of Physicians and Surgeons of Canada, the Canadian Council on Health Facilities Accreditation, and the Canadian Medical Association.

The existence of guidelines is no guarantee they will be used. The dissemination and diffusion of guidelines is a critical task and requires innovative approaches

and concerted effort on the part of professional associations and health care professionals. Continuing education is one avenue for the dissemination of guidelines. Local physician leaders, educational outreach programs, and computerized reminder systems may complement more traditional methods such as lectures and written materials.

Public education programs should also support the process of guideline dissemination. In this context, rapidly expanding information technology, such as interactive video or computerized information systems with telephone voice output, presents opportunities for innovative patient education. The media may also be allies in the communication of some relevant aspects of guidelines to the public. All of these technologies should be evaluated.

The implementation of multiple strategies for promoting the use of practice guidelines requires marshaling the efforts of governments, administrators, and health professionals at national, provincial and local levels. It is up to physicians and other health professionals to adopt approaches for the implementation of guidelines in clinical practice and to support research efforts in this direction.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Bell C, Kapral M. Use of ambulatory electrocardiography for the detection of paroxysmal atrial fibrillation in patients with stroke. Canadian Task Force on Preventive Health Care. Can J Neurol Sci 2000 Feb;27(1):25-31. [78 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2000

GUIDELINE DEVELOPER(S)

Canadian Task Force on Preventive Health Care - National Government Agency [Non-U.S.]

SOURCE(S) OF FUNDING

The Canadian Task Force on Preventive Health Care is funded through a partnership between the Provincial and Territorial Ministries of Health and Health Canada.

GUIDELINE COMMITTEE

Canadian Task Force on Preventive Health Care (CTFPHC)

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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Resource people: Nadine Wathen, Coordinator, and Tim Pauley, Research Assistant, Canadian Task Force on Preventive Health Care, Department of Family Medicine, University of Western Ontario, London, Ont.

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

A complete list of planned reviews, updates and revisions is available under the What's New section at the CTFPHC Web site.

GUIDELINE AVAILABILITY

Electronic copies: The recommendations are available from the Canadian Task Force on Preventive Health Care Web site.

Print copies: Available from Canadian Task Force on Preventive Health Care, 100 Collip Circle, Suite 117, London, Ontario N6G 4X8, Canada.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Stachenko S. Preventive guidelines: their role in clinical prevention and health promotion. Ottawa: Health Canada, 1994. Available from the Canadian Task Force on Preventive Health Care (CTFPHC) Web site.
- CTFPHC history/methodology. Ottawa: Health Canada, 1997. Available from the CTFPHC Web site.
- Quick tables of current recommendations. Ottawa: Health Canada, 2000. Available from the CTFPHC Web site.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on March 24, 2001. The information was verified by the guideline developer as of June 1, 2001.

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Date Modified: 11/15/2004


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